



Western Surgical Association 2020 Annual Meeting

Monday, November 9, 2020
4:00pm – 6:15pm Pacific Time
– Virtual Meeting --

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P 3. FACTORS CONTRIBUTING TO UNPLANNED READMISSION FOLLOWING COLECTOMY FOR MALIGNANT COLON CANCER

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Background: Colon resections are often performed with a substantial risk of complications. Unplanned readmissions are one of the major predictive factors of one-year mortality for colon cancer patient's post-colectomy and are often associated with increased treatment costs. The objective of this study was to determine the factors influencing 30-day unplanned readmissions following colectomy for malignant colon cancer patients.

Methods: A three-year review (2016-2018) of the ACS-NSQIP dataset for all adult patients with malignant colon cancer who underwent colectomy was performed. Colectomy cases were selected using the CPT variable in NSQIP with the corresponding CPT codes. Rectal cancer resections were excluded. Also excluded were patients who expired during admission and whose hospital length of stay was >30 days. Patient characteristics of those who had and did not have an unplanned readmission were compared with univariate and multivariate regression analysis. The primary outcome measure was unplanned readmission within 30 days of surgery.

Results: 37517 patients who had malignant colon cancer underwent colectomy and of these 3828 (9.3%) had an unplanned readmission within 30 days of surgery. The mean age of patients who were readmitted was 69.5 ± 13.4 and 51.1% were male. On Multivariate analysis comorbidities that were independently associated with unplanned readmission include smoking (OR= 1.115 (95% CI, 1.005-1.236)), insulin dependent diabetes mellitus (OR= 1.312 (95% CI, 1.159-2.485)), hypertension requiring medication (OR=1.085 (95% CI, 1.001-1.177)), steroid use for chronic condition (OR=1.238 (95% CI, 1.038-1.476)), and bleeding disorders (OR=1.399 (95% CI, 1.200-1.631)). Operative factors that were independently associated with increased odd of unplanned readmission include ASA of 3 (OR= 1.936 (95% CI, 1.219-3.074)) or 4 (OR= 2.590 (95% CI, 1.612-4.161)) and open procedure (OR= 1.275 (95% CI, 1.181-1.377)).

Conclusion: Unplanned readmissions following colectomy are associated with multiple patient associated factors. Higher ASA score and open procedure were operative factors associated with readmissions. Identification of the modifiable factors associated with increased odds of readmission, provides an opportunity for preoperative intervention and planning that may decrease a patient's risk of unplanned readmission.